

COST AS A DETERMINANT OF
MOTOR FREIGHT RATES

BY

TSAI-SHAN SU

B. S., National Northeastern Chiao-Tung University, 1933
M. S., University of Illinois, 1943

AN ABSTRACT OF A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
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UNIVERSITY OF ILLINOIS, 1946

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ACKNOWLEDGMENT

Pursuant to the constant instruction and encouragement of Professor D. P. Locklin and Professor M. H. Hunter of the University of Illinois this thesis was written. Professors C. C. Wiley, R. H. Blodgett, J. F. Bell, H. M. Gray and A. G. Anderson also gave many valuable suggestions. The writer wishes to acknowledge his debt and deep gratitude.

The writer is also indebted to Commissioners T. H. MacDonald, H. T. Hilts and Mr. W. G. Eliot, III of the Public Roads Administration, Dr. C. S. Morgan and Dr. F. K. Edwards of the Interstate Commerce Commission, and Mr. H. F. Chaddick, President of the American Transportation Company, for his practical training in highway transportation and correspondence of several years which were of essential value to this study.



The last two decades have witnessed a phenomenal growth of motor transportation. The improvements of highways and vehicles have enabled motor transportation to perform a significant role in our economy. The trucking service has proved to be a satisfactory transportation agency under conditions of comparative small volume of shipment and short distance of hauling. Farm products, interplant transportation and intraplant transportation greatly depend on motor vehicles as a transport facility. The importance of studying the relation between costs and motor freight rates is recognized today by many transportation economists.

The cost of trucking service, taking society as a whole, is the cost of operating motor trucks and a reasonable share of the expenses of providing and operating highways. They are the total expenses incurred on society to secure trucking service. Highways, however, are built by federal, state or local governments with the funds collected from general taxes and special taxes on the group of highway users; and serve several purposes, such as pleasure driving, commercial use and national defense. It is difficult to say how much should be charged to each common motor carrier and whether these carriers have paid their share of the costs of highways. For practical purposes we may take the total expenses of the common motor carrier as the costs of the trucking business.

Freight rates are the prices of motor transport service. These should be near the level of full costs. Then the public can enjoy the benefits of cheap transportation. Ideal freight rates are those which enable the motor carrier to earn an adequate revenue under an efficient and honest management; and which show no unjust discrimination to any particular commodity, place or person. The Interstate Commerce Commission has been fully aware of this principle in rate-making. The operating ratio, therefore, is usually given much consideration in determining the general rate level. As in the cases of *Increased Common Carrier Truck Rates in the East*, 42 M. C. C. 647, and *Increased Common Carrier Truck Rates in New England*, 43 M. C. C. 22, the Commission approved an increase of 4% in rates so that the operating ratio of those carriers would approximate ninety-three per cent.

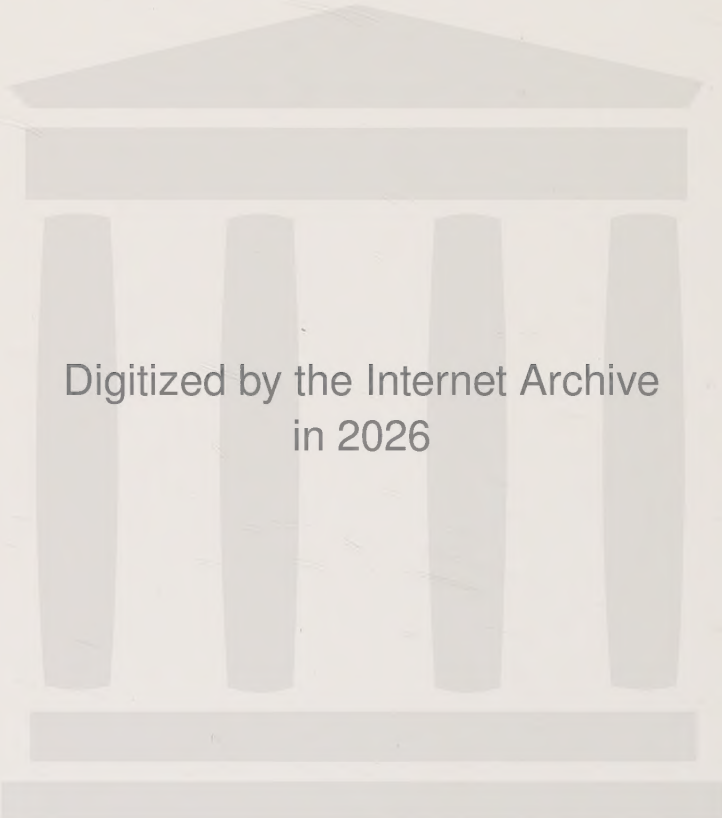
A reasonable rate on a particular commodity should reflect the cost of service. The density of commodity, size of shipment, need of special service, and direction and distance of hauling all ought to be taken into consideration for rate-making. Due to the characteristics of trucking costs, the average cost per truck mile for all traffic is of little value in determining the rate on any particular class of traffic. The Commission has given consideration, in determining rates, to density of commodity in the case of *Bell Potato Chip Co. vs. Aberdeen Truck Line*, 43 M. C. C. 377; to special service in the case of *California Motor Carrier Rates*, 41 M. C. C. 53; to the size of shipment in the case of *Boots, Shoes, and Paints in New England*, 43 M. C. C. 627; and to empty hauling in the case of *Petroleum and Products, Idaho, North Dakota, and Wyoming*, 42 M. C. C. 391. Rates on a particular commodity generally reflect the costs of service tendered to that commodity.

Competition has had much influence in railroad freight rate-making, and the same is true in motor freight rate-making. The percentage of variable costs to total costs, however, is very high in the trucking business; sometimes it equals ninety per cent or more. This limits the ability of a trucking concern to cut rates to meet competition. The minimum rate on a particular commodity should not be much below the full cost level. It must be reasonably compensatory, as the Commission pointed out in the case of *Wool to Twin Cities from Minnesota Points*, 42 M. C. C. 115.

Volume rates have been approved in rail freight rates by the Interstate Commerce Commission since 1939 in the case of *Molasses from New Orleans, La., to Peoria, Illinois*, 235 I. C. C. 502; and also in motor freight rates by the Supreme Court in 1944 in the case of *Eastern-Central Motor Carriers Association vs. United States*, 321 U. S. 194. This volume rate for motor freight was approved for the reason of competition with railroads, but not for the reason of reducing operating cost. For fixing reasonable rates, however, and eliminating destructive competitive practices in the trucking industry or among various forms of transportation, motor freight rates should adhere closely to costs.

VITA

Tsai-shan Su was born December 28, 1911, in Chinghsien, China. He was educated in the public schools of that town. He graduated from Northeastern Chiao-Tung University, Peking, in 1933. He then served in Tsientsin-Pukow Railway as station master, train despatcher, and traffic inspector. He graduated from the Academy of Military Communications, Nanking, in 1935. Since 1939 he served in the National Highways Administration of the Ministry of Communications. He received the degree of Master of Science from the University of Illinois in 1943. He is the author of "Elementary Corporation Accounting," which was printed in Peking in 1933.



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